

### Abstract

A process is proposed for obtaining crude 1,3-butadiene by extractive distillation with a selective solvent from a C<sub>4</sub> cut comprising C<sub>4</sub> acetylenes as secondary components in a dividing wall column (TK) having a bottom evaporator (V1), in which a dividing wall (T) is disposed in the longitudinal direction of the column to form a first subregion (A), a second subregion (B) and a lower combined column region (C), and which is disposed upstream of an extractive wash column (K), which comprises controlling the energy input into the dividing wall column (TK) via the bottom evaporator (V1) in such a way that a bottom stream (17) is drawn off from the dividing wall column (TK) and comprises solvent laden with the C<sub>4</sub> acetylenes whose proportion of 1,3-butadiene is restricted such that the loss of 1,3-butadiene is economically acceptable, and feeding the bottom stream (17) to an acetylenes outgasser (AG) and, in the acetylenes outgasser (AG), stripping out the C<sub>4</sub> acetylenes overhead and obtaining purified solvent as the bottom stream (27).

(Figure 1)